

RECEIVED  
CENTRAL FAX CENTER

10/542,716

JUL 17 2007

## REMARKS

The present Response is submitted in response to the Official Action of May 9, 2007.

The Examiner objects to the Disclosure because of the informalities in paragraphs [007] and [009] that were identified in the Official Action. In response, the above paragraphs are amended to address and overcome the noted grounds for objection and the Applicant accordingly respectfully requests that the objections to the Disclosure be reconsidered and withdrawn.

Next, the Examiner objects to claims 14-16, 18, 21, 22-24 and 25 for the reasons noted in the Official Action and those claims are accordingly amended to address and overcome the noted grounds for objection to the claims. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw the objections to the claims. Claims 23 and 24 are further rejected, under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons noted in the official action. In response, claim 23 is amended to more explicitly and clearly recite the limitations therein, while claim 24 is canceled as much as the subject matter recited in claim 24 is subsumed into amended claim 23. It should be noted that the subject matter recited in claim 23 as amended herein above is fully supported and disclosed in the specification, such as at paragraphs [024] and [029]. In brief, the structural aspect of the snap ring recited in claim 23 allows the impact ends of the snap ring to be resiliently twisted about a circumferential axis of the ring when the ring is being engaged into the annular groove, with the resilience of the snap ring then returning the snap ring to its untwisted shape after the ring has become engaged in the groove.

The amendments to claim 23, as well as the above discussed amendments to the claims addressing the objections to and rejection of the claims under 35 U.S.C. § 112 are therefore fully supported by the specification and drawings as originally filed and thereby do not add any new matter to the subject matter of the invention, the specification, the drawings or the claims and are not directed at distinguishing the present invention from the art of record in this case. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of the claims under 35 U.S.C. § 112.

10/542,716

Claims 14, 16-23 and 25 are then rejected, under 35 U.S.C. § 102(b), over Hallerberg '318 while claims 14, 15, 17-20, 23 and 24 are rejected, under 35 U.S.C. § 102(b), over Laurent et al. '814. The Applicant acknowledges and respectfully traverses all of the raised anticipation rejections in view of the following remarks.

As the Examiner is aware, in order to properly support an anticipation rejection under 35 U.S.C. §102(b), the cited reference must disclose each and every feature of the presently claimed invention. Therefore first considering the recitations of pending claim 14, the presently claimed elements of claim 14 include:

- (a) supported and supporting components (2, 3) that are components of a clutch disk carrier,
- (b) a snap ring (6) inserted into an annular groove (11) in the supporting component (2) and having impacting ends (6a, 6b) that are separated by a peripheral gap (7) and movable along a radial path.
- (c) two ramps located on the supported component (3) in the area of the radial path, and
- (d) a stop (10) integral with the supported component (3) and located between the impacting ends (6a, 6b).

Claim 14 further includes the limitations of:

- (e) the two ramps (8, 9) are integral with the supported component (3),
- (f) one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b),

and

- (g) the ramps (8, 9) are arranged on a diameter that is either smaller than the diameter of the impacting ends (6a, 6b) or greater than the diameter of the impacting ends (6a, 6b).

Now considering the cited prior art references in light of the presently claimed features of claim 14, Hallerberg '318 does not teach, suggest or show a snap ring securing a supported component to a supporting component, but instead shows only a safety ring that is intended solely to prevent accidental disassembly of a cage and components secured by the cage, so that the Hallerberg '318 ring does not perform any form of support function.

10/542,716

In further fundamental distinction between the present invention as recited in claim 14 and the teachings of Hallerberg '318, Hallerberg '318 does not teach, suggest or show a structure having (c) "two ramps located on the supported component (3) in the area of the radial path", or (e) "two ramps (8, 9) . . . integral with the supported component (3)", or a structure where "(f) one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b), or where "(g) the ramps (8, 9) are arranged on a diameter that is either smaller than the diameter of the impacting ends (6a, 6b) or greater than the diameter of the impacting ends (6a, 6b)".

In still further distinction, Hallerberg '318 does not show or suggest a structure having (d) "a stop (10) integral with the supported component (3) and located between the impacting ends (6a, 6b)" but instead shows a safety pin and hole, neither of which is integral with the other components of the Hallerberg '318 mechanism, which "constitutes a positively engageable interlocking connection between cage 2 and safety ring 7 and ensures that during relative movement between cage 2 and inner race 5 the safety ring is carried by the cage 2". It is therefore apparent that not only do these elements in Hallerberg '318 comprise a completely different structure from stop (10) of the presently claimed invention, but they are intended to serve an entire different purpose from the stop (10) of the presently claimed invention. That is, the pin and hole mechanism of Hallerberg '318 are solely a safety device to prevent accidental disassembly of the ring, race and cage assembly while stop (10) of the present invention prevents excessive peripheral movement of the snap ring so that the ramps (8, 9) are always between the impacting ends (6a, 6b).

It is, therefore, the Applicant's belief and position that claim 14, as amended herein above, is fully and patentably distinguished from Hallerberg '318 under the requirements and provisions of 35 U.S.C. § 102 for the above discussed reasons, and that claims dependent claims 15 -25 are also patentably distinguished over and from Hallerberg '318 under 35 U.S.C. § 102 for at least the same reasons. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of the pending claims in view of Hallerberg '318, and allow claims 14 -25 as amended herein above.

Next considering Laurent et al. '814, like Hallerberg '318, Laurent et al. '814 does not teach, suggest or show a snap ring securing a supported component to a supporting component,

10/542,716

but instead shows only snap rings that are intended solely to prevent accidental disassembly of two components, element ends 2 and 3, by connecting the components to a third component, e.g., sleeve 1, so that the Laurent et al. '814 assembly does not perform any form of support function.

In further fundamental distinction between the presently claimed invention, as recited in claim 14, and the teachings of Laurent et al. '814, Laurent et al. '814 does not teach, suggest or show any structure having (c) "two ramps located on the supported component (3) in the area of the radial path", or (e) "two ramps (8, 9)...integral with the supported component (3)", or a structure where "(f) one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b), or where (g) the ramps (8, 9) are arranged on a diameter that is either smaller than the diameter of the impacting ends (6a, 6b) or greater than the diameter of the impacting ends (6a, 6b)".

It is noted that Laurent et al. '814 includes a set of bosses 9a, 9b, 9c that interact with the rings in the manner of cams when the rings and sleeve are rotated relative to one another so that the rings are compressed to allow the rings to engage with or disengage from the element ends 2 and 3. It is, therefore, apparent, however, that bosses 9a, 9b and 9c of Laurent et al. '814 are fundamentally different in structure and function from the ramps (8, 9) of the presently claimed invention as recited in claim 14.

In still further distinction, Laurent et al. '814 does not teach, suggest or suggest a structure having (d) "a stop (10) integral with the supported component (3) and located between the impacting ends (6a, 6b)". As described above, Laurent et al. '814 instead shows a set of bosses 9a, 9b, 9c that interact with the same of the rings in the manner of cams when the rings and sleeve are rotated relative to one another so that the rings are compressed to allow the rings to engage with or disengage from the element ends 2 and 3. It is therefore apparent that not only do these elements in Laurent et al. '814 comprise a completely different structure from stop (10) of the presently claimed invention, but they are intended to serve an entire different purpose from the stop (10) of the presently claimed invention.

It is therefore the Applicant's belief and position that claim 14, as amended herein, above is fully and patentably distinguished from Laurent et al. '814 under the requirements and

10/542,716

provisions of 35 U.S.C. § 102 for the reasons discussed above, and that dependent claims 15- 25 are also patentably distinguished over and from Laurent et al. '814 under 35 U.S.C. § 102 for at least the same reasons. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of the pending claims in view of Laurent et al. '814, and allow claims 14 -25 as amended herein above.

Lastly with regard to the pending claims, it will be noted that after consideration of the cited prior art and the present invention as recited in claims 14 -25, new claim 26 is entered and this claim is directed to an alternative recitation the present invention emphasizing yet other aspects of the present invention. It will also be noted, however, that claim 26 is fully supported by the specification and by claims 1-13 and 14 - 25, as originally filed, and as such does not add any new matter to the present invention, the specification or the claims.

Considering claim 26 in light of the cited prior art, the Applicant respectfully points out that claim 26 recites the features of:

- (a) an arrangement for axial support of two jointly rotating components (2, 3) of a clutch disk carrier,
- (b) a snap ring (6) having two impacting ends (6a, 6b) separated by a peripheral gap (7) wherein the snap ring (6) is movable in an area of a radial spring path and inserted in an annular groove (11) of a supporting component (2),
- (c) the supporting component (2) has crimpings (2a) which project radially to form the annular groove (11),
- (d) the supported component (3) has two ramps (8, 9) in the area of the radial spring path of the impacting ends (6a, 6b) of the snap ring (6) and a front flange (3a) projecting radially therefrom and inclined axially toward the crimpings (2a) of the supporting component (2), and
- (e) one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b) of the snap ring (6), and the two impacting ends(6a,6b) are placed on a front face (3c) of the front flange (3a) so that the component (3) to be supported is supported in an axial direction.

As discussed above with regard to claim 14, Hallerberg '318 does not teach, suggest or show (a) "an arrangement for axial support of two jointly rotating components (2, 3) of a clutch disk carrier", but instead shows only a safety ring that is intended solely to prevent accidental

10/542,716

disassembly of a cage and components secured by the cage, so that the Hallerberg '318 ring does not perform any form of support function.

In still further distinction, Hallerberg '318 does not teach, suggest or show that (c) "the supporting component (2) has crimpings (2a) which project radially to form the annular groove (11)". Hallerberg '318 does not, in fact, state how the grooves in Hallerberg '318 are created but it appears clear from the drawings in Hallerberg '318 that the grooves in Hallerberg '318 are formed by machining to groove the surface of the supporting component (5). Regardless of how the grooving is formed in Hallerberg '318, however, the resulting structure is fundamentally different from the use of crimping to form the annular groove of the presently claimed invention.

Still further, Hallerberg '318 does not teach, suggest or show a structure where (d) "the supported component (3) has two ramps (8, 9) in the area of the radial spring path of the impacting ends (6a, 6b) of the snap ring (6) and a front flange (3a) projecting radially therefrom and inclined axially toward the crimpings (2a) of the supporting component (2)", or where (e) "one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b) of the snap ring (6), and the two impacting ends (6a, 6b) are placed on a front face (3c) of the front flange (3a)".

In a yet further fundamental distinction between the present invention as Hallerberg '318, Hallerberg '318 does not teach, suggest or show an assembly where the component (3) is to be "supported in an axial direction".

It is, therefore, the Applicant's belief and position that new claim 26 is fully and patentably distinguished over and from Hallerberg '318, under the requirements and provisions of 35 U.S.C. § 102 and/or § 103 for the reasons discussed above, and the Applicant therefore respectfully requests allowance of claim 26 as presented herein above.

Next considering Laurent et al. '814, like Hallerberg '318 Laurent et al. '814 does not teach, suggest or show (a) "an arrangement for axial support of two jointly rotating components (2, 3) of a clutch disk carrier", but instead shows only snap rings that are intended solely to prevent accidental disassembly of the components, element ends 2 and 3, by connecting

10/542,716

the components to a third component, sleeve 1, so that the Laurent et al. '814 assembly does not perform any form of support function.

In further fundamental distinction between the present invention as recited in claim 26 and the teachings of Laurent et al. '814, Laurent et al. '814 does not teach, suggest or show a structure where (d) "the supported component (3) has two ramps (8, 9) in the area of the radial spring path of the impacting ends (6a, 6b) of the snap ring (6) and a front flange (3a) projecting radially therefrom and inclined axially toward the crimpings (2a) of the supporting component (2), or wherein (e) "one ramp (8, 9) is radially coordinated with each of the impacting ends (6a, 6b) or the snap ring (6), and the two impacting ends(6a,6b) are placed on a front face (3c) of the front flange (3a)".

It is noted in this regard that Laurent et al. '814 includes a set of bosses 9a, 9b, 9c that interact with the of the rings in the manner of cams when the rings and sleeve are rotated relative to one another so that the rings are compressed to allow the rings to engage with or disengage from the element ends 2 and 3. It is therefore apparent, however, that bosses 9a, 9b and 9c of Laurent et al. '814 are fundamentally different in structure and function from the ramps (8, 9) of the present invention as recited in claim 14.

In a yet further fundamental distinction between the present invention and Laurent et al. '814 Laurent et al. '814 does not teach, suggest or show an assembly where the component (3) is to be "supported in an axial direction".

It is, therefore, the Applicant's belief and position that new claim 26 is fully and patentably distinguished over and from Laurent et al. '814 under the requirements and provisions of 35 U.S.C. § 102 for the reasons discussed above, and the Applicant therefore respectfully requests allowance of claim 26 as presented herein above.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejections or applicability of the

10/542,716

Hallerberg '316 and/or Laurent et al. '814 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 32,018  
Customer No. 020210  
Davis Bujold & Daniels, P.L.L.C.  
112 Pleasant Street  
Concord, NH 03301-2931  
Telephone 603-226-7490  
Facsimile 603-226-7499  
E-mail: [patent@davisandbujold.com](mailto:patent@davisandbujold.com)